

U.S. NAVAL BASE, PEARL HARBOR, NAVAL RADIO STATION,  
TYPE "D" CASUALTY STATION  
(U.S. Naval Base, Pearl Harbor, Naval Radio Station, Dispensary,  
Building 22)  
(NCTAMS PAC, Medical Clinic, Facility 22)  
Wahiawa vicinity  
Honolulu County  
Hawaii

HABS No. HI-522-C

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

HISTORIC AMERICAN BUILDINGS SURVEY  
U.S. Department of the Interior  
National Park Service  
Oakland, California

## HISTORIC AMERICAN BUILDINGS SURVEY

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Location: Wahiawa vicinity  
City and County of Honolulu, Hawaii

USGS 7.5 minute series topographic map, Hauula, HI, 1992.  
Universal Transverse Mercator (UTM) coordinates 04.603420.2379570

Present Owner: United States Navy

Present Occupant: United States Navy

Present Use: Medical Clinic

Significance: Facility No. 22 is significant for its association with the history of base development at Naval Computer and Telecommunications Area Master Station (NCTAMS) and the building activity undertaken by the U.S. Navy in response to the United States' entry into World War II. In addition it is significant as an example of a modern style splinterproof medical facility constructed during World War II. It is one of three extant medical buildings in Hawaii to follow similar plans. The other two structures, Facilities 43 and 45, are situated at West Loch and the Puuloa Training Facility.

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## PART I. DESCRIPTION

Facility No. 22 was built in 1943 as a Type D Decontamination Unit and Casualty Station. It is a single-story building that is located on a flat parcel of land at Naval Computer and Telecommunications Area Master Station (NCTAMS). It is characterized by its masonry construction and flat roof with broad overhanging open eaves with exposed beam ends. The building has concrete masonry block walls and sits on a reinforced concrete slab foundation, which is raised one step above grade. It has a built-up composition roof with a 6" tongue and groove roof deck. Between the roof's outer membrane and its deck, is a 4" thick concrete layer that was installed in order to make the building splinterproof in the event of being bombed. Its 12" x 16" roof beams taper at the ends and support a 4'-10" overhanging eave.

The L-shaped building is ten bays long and five bays wide, with each of the bays in the original part of the building demarcated by an exposed roof beam. Three additions have been placed on the original rectilinear shaped building. The west side of the building, which originally served as the primary entry featured a porte cochere, called an ambulance drive on original drawings. The two ends of the 16' wide porte cochere have been infilled to form additional interior space. A second addition has been extended beyond the porte cochere's original outer wall, placing the west side of the building almost adjacent to the sidewalk along Midway Drive. Four, modern fixed plate glass windows are set in this new facade. Two similar windows are in the north side wall of this addition, as well as in the north wall that enclosed the porte cochere. In addition, a simple hinged door serves as an entry to the former porte cochere's interior from the north side.

On the north side of the building a third addition has been constructed. The blast wall which originally protected the operating room door has been removed, as has the operating room door, and a wing now extends off the east end of the north wall. An inset lanai, whose roof is supported by four 8' high concrete block columns, runs across the west face of this addition and shelters a new double doorway into the original building, which serves as the building's primary entry. In addition to the new doorway, a fixed plate glass window, with a pair of glass louvers underneath, also now penetrate this wall.

The additions are compatible with the original design in that they have hollow concrete block walls and a flat roof. However, their fenestration and doors are all modern. When the porte cochere was enclosed, exposed roof beams were used to emulate the original design; however, this element was omitted when the west wall was extended further outward. The roof for the wing on the north side also displays no exposed roof beams, and its overhang is not as broad as the original building's was.

The original fenestration openings of the building were filled with fixed metal lightproof louvers that ran in a band around the building. The band, which ran below the eaves and was situated above the 6'-10" high masonry walls, has all been in-filled, although the sloping concrete sills remain, as do the 12" x 12" concrete posts which framed and articulated the openings.

The east wall of the original building remains intact, with no new windows, and an original rear door. This wall of the north wing includes a double doorway as well as a double stacked awning window, and a pair of triple stacked awning windows.

U.S. NAVAL BASE, PEARL HARBOR, NAVAL RADIO STATION,  
TYPE "D" CASUALTY STATION  
(U.S. Naval Base, Pearl Harbor, Naval Radio Station, Dispensary, Building 22)  
(NCTAMS PAC, Medical Clinic, Facility 22)  
HABS No. HI-522-C (Page 3)

The south wall of the original building has had a doorway placed in its third bay from the east corner, and otherwise remains uncompromised. The porte cochere infill contains a hinged door, flanked on the east by a pair of triple stacked awning windows. The second west side addition features a pair of double doors.

The interior of the building has been completely modified, with only one apparently original door still intact. This is a flush hinged wooden door with a doorcheck and a deco-style escutcheon plate on the handgrip.

## PART II. HISTORICAL CONTEXT

For more information on Cold War operations at NCTAMS see HABS HI-522-A and HABS HI-522-B, a report on the Operations Building, Facility 294 and the AN/FRD-10 Antenna, Facility 314 at Naval Computer and Telecommunications Area Master Station, Pacific (NCTAMS PAC). For further information on Type D Casualty stations see Addendum to HABS HI-161, a report on the dispensary (Facility 43) at Naval Ammunition Depot West Loch, Oahu.

### Construction of Facility 22 and the Build-Up of the Naval Radio Station

Facility 22 was constructed under contract NOy-4173 by Contractor's Pacific Naval Air Bases (CPNAB), a consortium of firms doing construction work for the Navy in the Pacific during the period before WWII and during the early war years. CPNAB completed their work at the Wahiawa Naval Radio Station on May 31, 1943 when Navy Construction Battalions (CBs, or SeaBees) took over.<sup>1</sup>

Most of the buildings constructed at the Naval Radio Station were designed at Pearl Harbor, either by the designers of CPNAB or, as in the case of Facility 22, by the Public Works Department of the 14<sup>th</sup> Naval District.<sup>2</sup> The title blocks of the original drawings for Facility 22 indicate that the design section of Public Works drew the plans for the building.<sup>3</sup> The plans show that they were drawn by a person named "Harden" under the direction of architect Jozef Van Oort, who was the chief architect at Pearl Harbor from 1939 until his retirement in 1958. Mr. Van Oort was born in Zwolle, Holland about 1893 and received his architectural degree in that country, before moving to the United States in 1923. He lived in California and did architectural work for the U.S. Government in the early 1930s before being hired in 1935 by the U.S. Army Air Corps to relocate to Hawaii and work on the design of Hickam Field. After completion of Hickam in 1939 he worked for the U.S. Army Corps of Engineers for a short while and then went to work for the Navy. He was in charge of all architectural operations at Pearl Harbor during WW II and the Korean War. The project manager, as indicated on the drawings and in the contract records of CPNAB, was Robert M. Belt.<sup>4</sup> Belt was a civil engineer who would go on to become a co-founder of the prominent Hawaii planning and engineering firm, Belt Collins Hawaii, Ltd.

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<sup>1</sup> Contractors Pacific Naval Air Bases (CPNAB), *Technical Report and Project History Contracts NOy-3550 and NOy-4173*. (n.p., n.d.), A-862.

<sup>2</sup> CPNAB, *Technical Report*, A-857.

<sup>3</sup> Naval Facilities Engineering Command (NAVFAC) Pacific Division, Plan files drawings numbered 199650 to 199655, May 14, 1942.

<sup>4</sup> CPNAB, *Technical Report*, A-854.

U.S. NAVAL BASE, PEARL HARBOR, NAVAL RADIO STATION,  
TYPE "D CASUALTY STATION  
(U.S. Naval Base, Pearl Harbor, Naval Radio Station, Dispensary, Building 22)  
(NCTAMS PAC, Medical Clinic, Facility 22)  
HABS No. HI-522-C (Page 4)

The design of the Naval Radio Station was initiated under pre-war conditions when "peace-time construction of permanent buildings" was standard building practice in the Navy.<sup>5</sup> After the Japanese attack of December 7, 1941 the conservation of critical war-time materials, including some building materials, necessitated the transition to war-time design considerations which would be faster to build and often featured the use of wood for building framing. Facility 22, although designated a permanent building, was designed in May 1942, a time when building material conservation and simpler construction methods were being implemented in the military. The wood roof framing with added concrete splinterproofing layer and sand filling of the exterior walls illustrates this economic and simple construction philosophy.

The first facilities to be constructed at the Naval Radio Station are shown in three groups on a 1942 map.<sup>6</sup> These were; the industrial area, situated just inside the gate north of Center Street and also covering the two Operations Buildings in outlying areas of the station; the officers quarters area, south of Center Street just inside the gate; and the personnel area, which included enlisted men's and C.P.O. houses along Circle Drive east of the officers quarters area. The industrial area included all of the facilities necessary for the operation of the station except for the houses. It included; barracks, mess hall, operations buildings numbers one and two, direction finder, power plant and auxiliary power plants for the two operations buildings, garage, pump house and well, gasoline service station, storehouse, and splinterproof personnel shelters. Much of the construction in these three groups of buildings appears to have been complete by February 1942.<sup>7</sup> As of June 30, 1942, Facility 22 was authorized but its construction had not yet started.<sup>8</sup> By March 1943, Facility 22 appears to have been completed.<sup>9</sup>

During the time that CPNAB was developing the Naval Radio Station at Wahiawa, between 1940 and May 1943, a number of setbacks, both small and large occurred. One of these concerned the water supply for the station. It was initially proposed to supply the station with water by piping from the main line of the Wahiawa Water Company, but then it was subsequently felt that a better long-term solution was to sink a well. The contractors expected to find water at a depth of about 850' and began drilling in April 1941. At a depth of 550' the drill bit either came off the drill shaft or was broken and was lost at the bottom of the borehole. This required starting another borehole. When the anticipated final depth of 850' was reached, the rock surrounding the borehole was not permeable enough to allow a flow of water and drilling was continued to a depth of 970' (about 120' deeper than originally planned) where permeable rock yielded water in the well.<sup>10</sup>

A less serious problem, although undoubtedly frustrating, was the light oil topping used over the coral ballast of the roads constructed on the station. This method of building the roads was utilized because the preferred medium, asphalt pavement, was being diverted to the higher-priority construction of airfields. These oiled roads became quite slick, causing vehicles to skid. At the steep road that went from the main portion of the station to the Operations Building No. 2

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<sup>5</sup> CPNAB, *Technical Report*, A-857, A-860.

<sup>6</sup> NAVFAC, Plan files drawing numbered OA-N1-528, June 30, 1942.

<sup>7</sup> Fourteenth Naval District Historic Photo Collection (14<sup>th</sup> ND Photo Collection). Photo #14271, ca February 1942.

<sup>8</sup> NAVFAC, Plan files drawing numbered OA-N1-528, June 30, 1942.

<sup>9</sup> *Ibid.*, OA-N26-362, March 1943.

<sup>10</sup> CPNAB, *Technical Report*, A-859, A-860.

U.S. NAVAL BASE, PEARL HARBOR, NAVAL RADIO STATION,  
TYPE "D CASUALTY STATION  
(U.S. Naval Base, Pearl Harbor, Naval Radio Station, Dispensary, Building 22)  
(NCTAMS PAC, Medical Clinic, Facility 22)  
HABS No. HI-522-C (Page 5)

(Facility 12) the lack of traction made the road impassible at times.<sup>11</sup> The station roads were paved and repaired in 1946.<sup>12</sup> Another unexpected problem encountered during the development of the Naval Radio Station at Wahiawa was the need for heating in the buildings. "Originally, no heating was contemplated; little had been found necessary at nearby Schofield Barracks [about 300' lower in elevation]. During heavy rainfall, however, the temperature fell to as low as 48° F., so a project (No. 1054) for heating facilities was authorized. Then it was cancelled; small unit heaters were purchased out of station furniture allotments."<sup>13</sup> Facility 22 was designed with a heater room at its northeast corner.

By the end of WW II the Naval Radio Station's industrial area had been more densely built out. Large structures had been built west of the gate on the north side of Center Street for WAVES (a Navy acronym for Women Accepted for Volunteer Emergency Service) quarters, storehouses, laundry, messhall, and boiler room. The area east of the industrial area (in the vicinity of Facility 22) had been built up with barracks, reservoir, brig, and numerous temporary buildings (probably Quonset huts) that served as barracks and shops. Also by the end of the war, in the outlying areas, the station had added four additional operations buildings and many more receiving antennas.<sup>14</sup>

By the early 1950s most of the temporary buildings (Quonset huts) had been removed. Despite the United States' involvement in the Korean War, little building construction appears to have occurred at the Naval Radio Station. One operations building was demolished and another constructed, still yielding six operations buildings. Although the number of operations buildings remained constant through 1951, the configuration of the antennas in the various antenna fields around the operations buildings had changed dramatically since WW II. All rhombic antenna fields were reconfigured and the post WW II rectangular-shaped antennas near Operations Building 1 (Facility 10) and Operations Building 2 (Facility 12) had been removed. The previous field of rectangular-shaped antennas at Facility 10 was replaced with a field of rhombic antennas.<sup>15</sup> This is likely indicative of evolving communications and intelligence gathering technology which mandated the upgrading of equipment which could still be housed and operated from existing buildings.

By 1971 this rhombic antenna field around Facility 10 had been removed. Most of the other rhombic antenna fields at the station greatly resembled their 1951 configuration, with one exception. The antenna field around Radio Operating Building No. 4 (Facility 80) as well as the building itself was gone, removed ca 1962. They had been replaced by the AN/FRD-10 Circularly Disposed Antenna Array, or CDAA (Facility 314) and its associated operations building (Facility 294). This CDAA was in use from 1963 to 2004 and was used under the Classic Bullseye Program to gather foreign intelligence information by intercepting and locating voice transmissions and message traffic that was broadcast on high frequency (short wave) channels.

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<sup>11</sup> Ibid., A-863.

<sup>12</sup> NAVFAC, Plan files drawing numbered OA-N2-391, May 29, 1946.

<sup>13</sup> CPNAB, *Technical Report*, A-864.

<sup>14</sup> NAVFAC, Plan files drawing numbered OA-N1-1506, June 30, 1946.

<sup>15</sup> NAVFAC, Plan files drawing numbered OA-N1-2207, June 30, 1951.

U.S. NAVAL BASE, PEARL HARBOR, NAVAL RADIO STATION,  
TYPE "D CASUALTY STATION  
(U.S. Naval Base, Pearl Harbor, Naval Radio Station, Dispensary, Building 22)  
(NCTAMS PAC, Medical Clinic, Facility 22)  
HABS No. HI-522-C (Page 6)

NCTAMS During the Cold War

Established in 1940 and commissioned on December 21, 1941, the Naval Radio (Receiving) Station at Wahiawa (which would eventually become NCTAMS PAC Wahiawa), was originally slated to be the site of replacement high frequency direction finding (HF-DF) equipment for HF-DF sites then located at Lualualei and Heeia on Oahu, which were not positioned for optimum reception.<sup>16</sup> Shortly after planning for the Wahiawa facility began, the Navy realized that its receiving capabilities needed to be expanded, and also had to remain separated from its transmitting facilities, located at Lualualei. This realization resulted in the plan for Wahiawa being enlarged and changed to incorporate a receiving function along with the earlier planned direction finding capability. The pace of construction at this expanded receiving station quickened after the December 7, 1941 attack on Pearl Harbor and the Navy consolidated its Oahu receiving capabilities (Lualualei and Heeia) at Wahiawa by the end of that year. At the end of WW II the Naval Radio (Receiving) Station at Wahiawa was the main control and radio receiving station in the Pacific between the U.S. mainland and the Pacific theater.

After WWII, when a 1947 Navy request for Congressional funding to upgrade and harden the facilities at Naval Radio Station Wahiawa was denied, the main control function was transferred to Pearl Harbor (Central Radio Station). The receiving function of Wahiawa was retained. In 1955, Naval Radio Station Wahiawa was functioning with about 500 personnel, primarily in buildings from the initial phase of WWII construction, with some electronics and equipment.

The following year, corresponding with the introduction of a Regulus I nuclear-capable missile training unit at the Pacific Missile Range Facility on Kauai, the Central Radio Station was transferred from Pearl Harbor back to Wahiawa, and in conjunction with transmitting facilities at Lualualei and Haiku (Oahu) became Naval Communications Station (NAVCOMMSTA) Pearl Harbor. Wahiawa became one of six Navy NAVCOMMSTA locations along with: Washington, D.C.; San Francisco; Guam; Balboa, Panama Canal Zone; and Port Lyautey, French Morocco. The Regulus I missile, which would be deployed to Pearl Harbor in 1957 aboard submarines with Guided Missile Group (GMG) 91, was a part of President Eisenhower's "New Look" national security policy which emphasized a reliance on tactical nuclear weapons while maintaining a modestly sized military that was economically justified and supportable by the nation's economy.

The added responsibility at Wahiawa under NAVCOMMSTA Pearl Harbor beginning in 1956 not only corresponded to the activation of Regulus I missiles and the New Look national security policy, but to advancements in communications technology enabling a link between Washington D.C. and Hawaii. This communications system was called Communication Moon Relay (CMR) and transmitted teletype and facsimile messages between Washington D.C. and Wahiawa by bouncing signals off the surface of the moon using 84' diameter dish antennas. The CMR receiving antenna for the Pacific was located at Wahiawa, along Polaris Drive. The transmitting antenna, for broadcasting back to Washington D.C., was located at Opana on the north shore of Oahu. This system, although dependent upon the lunar cycle, proved more efficient and secure than previous surface communication techniques and was an important breakthrough for Cold War fleets stationed in the Pacific. Experimental proof of this system was conducted in Maryland in 1954. CMR became officially operational in 1959 and it remained in service until

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<sup>16</sup> George P. McGinnis, *U.S. Naval Cryptologic Veterans Association, History of Naval Cryptology*, (Paducah, KY: Turner Publ. Co., 1996), 16.

U.S. NAVAL BASE, PEARL HARBOR, NAVAL RADIO STATION,  
TYPE "D CASUALTY STATION  
(U.S. Naval Base, Pearl Harbor, Naval Radio Station, Dispensary, Building 22)  
(NCTAMS PAC, Medical Clinic, Facility 22)  
HABS No. HI-522-C (Page 7)

1964. In 1960 NCTAMS was designated Naval Communication Area Master Station (NAVCAMS) Wahiawa.

An important Cold War activity at NCTAMS PAC Wahiawa, was the collection of signals intelligence (SIGINT). This is the interception of message traffic by someone other than the message sender or the intended recipient. SIGINT facilities were commonly associated with large fields of rhombic antenna of the sort found at Wahiawa from at least the early 1950s. Rhombic antennas are extremely directional in their operation; they are composed of a wire suspended off the ground by four posts which form a diamond shape. Once erected rhombic antenna have little flexibility in the direction they can receive signals from, they must be set up with a specific target in mind. An important development in SIGINT collection was the perfection of an antenna that could scan a wider geographical area for signals. A large antenna of this type which was installed at Wahiawa in 1963 was the Circularly Disposed Antenna Array (CDAA) of Facility 314 and it associated Operations Building Facility 294. The CDAA at NCTAMS (this CDAA was a type known as AN/FRD-10) replaced many of the older rhombic antennas that were used for SIGINT collection. The CDAA at Wahiawa was part of the U.S. program of fourteen CDAAs worldwide called "Classic Bullseye" which is believed to have been used to intercept Soviet submarine communications and diplomatic messages in the west Pacific and operated at least until the dissolution of the Soviet Union in 1991. The Wahiawa CDAA ceased operations in 2004.<sup>17</sup>

During the late 1950s the military was working on communication programs using artificial satellites. In order to eliminate the possibility of duplication of programs, NASA was tasked to work on "mirror" satellites that merely reflected signals (similar in principle to the earlier CMR system of bouncing signals), while the Department of Defense was given responsibility for "active" or "repeater" satellites that amplified the received signal before relaying it to a ground station thereby providing a better quality of communication. Early prototype communications satellites developed by the Naval Research Laboratory were under the SCORE program in 1958, Courier in 1960, and Advent in 1960-62. Facilities at NCTAMS from this period and believed to be related to satellite communications are: Facility 242, an operations center for communication security (built 1958); and Facility 244, a satellite receiver station (built in 1958) that originally had a large dish antenna mounted on its roof.

Another important satellite-related mission for NCTAMS in the 1960s was the operation of tracking stations which monitored satellites of the Transit navigation system. This system of satellites, launched in 1962 and operational until 1996, provided navigational fixes for the Navy's ballistic missile submarines. The network of tracking stations for the Transit satellites was called Tranet. NCTAMS was the site of one of the four original Tranet tracking stations (the system was later expanded to seventeen Tranet stations). The NCTMAS Tranet tracking station was located in Facility 387. This facility became operational in 1965.

Besides being gathered from CDAA locations, like the large AN/FRD-10 antenna at NCTAMS, SIGINT information was also gathered from Navy surveillance ships operating offshore from foreign coasts during the Cold War. In 1964 the Navy set up an operational ship-to-shore communication system to reach these surveillance ships. Because these ships were operating under cover stories that they were doing research rather than spying, the system was named

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<sup>17</sup> Dee Ruzicka, "HAER HI-322-B, AN/FRD-10 CDAA," (Washington D.C.: Dept of the Interior/NPS, 2007)



U.S. NAVAL BASE, PEARL HARBOR, NAVAL RADIO STATION,  
TYPE "D CASUALTY STATION  
(U.S. Naval Base, Pearl Harbor, Naval Radio Station, Dispensary, Building 22)  
(NCTAMS PAC, Medical Clinic, Facility 22)  
HABS No. HI-522-C (Page 8)

Technical Research Ship Special Communications System (TRSSCOM). This system, utilizing a reflective signal bounced off the moon, as the original CMR system, fitted a 16' dish antenna on surface ships that allowed them to communicate with another ship so equipped or with one of three ground receiving stations that were located at NCTAMS Wahiawa, Maryland, and Okinawa. Apparently some of the equipment for the TRSSCOM system (possibly the 84' dish antennas) was salvaged from the original CRM program, which was disestablished at the time TRSSCOM was set up. The TRSSCOM system was subject to the same limitation as the original CMR system, it could only transmit/receive when the moon was up, relative to its position. Additionally, another problem was chronic; the automatic system which kept the ship's antenna pointed at the moon despite any rolling of the seas rarely operated properly. The specific facilities at NCTAMS that were associated with the TRSSCOM program could not be identified.

During the early 1960s, although the United States national security strategy was evolving into a form called "Flexible Response" which called for increasing the nation's conventional military options to deal with crisis situations, a program of nuclear deterrence remained in place. This was based on the nuclear triad of three different types of delivery systems (long range bombers, intercontinental ballistic missiles[ICBM], and submarine launched ballistic missiles[SLBM]), at least one of which would, in theory, survive a nuclear first strike by an enemy and ensure a second strike capability that would deliver massive destruction to the attacking nation. The Tranet tracking station at NCTAMS Facility 387 would have enabled the accurate navigation of the Polaris missile submarines which contributed to the United States nuclear triad system of deterrence by patrolling with their SLBMs.

In the mid-1970s NCTAMS became the site of a complex of buildings and antennas that supported the Defense Satellite Communications System (DSCS), a super-high frequency communication system that uses satellites in geosynchronous orbit for secure voice and data communication. These secure channels are used for high-priority communications, very often between command centers and battlefield operators, such as ships at sea. DSCS is also used to transmit early warning signals, presumably between sensors and control centers. This secure communication system was an important part of the United States command and control operations during the Cold War. The first DSCS satellite was launched in 1966 and the last in 1995. The DSCS complex at NCTAMS included: Facility 409, Operations Center; Facility 411, Independent Power Station; and Facilities 412, 413, and 414, Satellite Tracking Antennas. The complex was designed in 1975 and built in 1977. These dates correspond with the launching of satellites in the DSCS II program. The fourteen satellites for the DSCS II program were launched from November 1971 to September 1989.

Beginning in the late 1970s NCTAMS became a transmitting and receiving station for the Fleet Satellite Communication (FLTSATCOM) system. This employed geosynchronous satellites in orbit above the equator and a system of three transmitting and receiving stations (NCTAMS, Norfolk, VA, and Washington D.C.). FLTSATCOM was used as a secure communications link between the Navy, Air Force, and presidential command network. It is utilized by Navy surface ships, submarines, aircraft, and shore installations. Development of the system began in 1972, the first launch of a FLTSATCOM satellite was in 1978, and the system became operational in 1981. FLTSATCOM's transmitting antenna is 11' in diameter and surrounded by a wire mesh screen. The specific facilities at NCTAMS that were associated with the FLTSATCOM system could not be identified.

U.S. NAVAL BASE, PEARL HARBOR, NAVAL RADIO STATION,  
TYPE "D CASUALTY STATION  
(U.S. Naval Base, Pearl Harbor, Naval Radio Station, Dispensary, Building 22)  
(NCTAMS PAC, Medical Clinic, Facility 22)  
HABS No. HI-522-C (Page 9)

In 1990 NCTAMS was known as Naval Telecommunications Area Master Station, Eastern Pacific (NCTAMS-EASTPAC) after it was merged that year with the Navy Regional Data Automation Center at Pearl Harbor. It was renamed again in 1997 when it became Naval Computer and Telecommunications Area Master Station, Pacific (NCTAMS PAC).

The Changing Role of Facility 22 During Late WW II and the Cold War

Originally, Facility 22 was known as a "Building 22, Casualty Station, Type D." It was constructed as a permanent building.<sup>18</sup> As a casualty station, Facility 22 was planned to be utilized as a triage area to sort through the injured and give first aid so that casualties would survive the travel to a regular hospital where more advanced medical techniques could be employed. During the early war years, when Facility 22 was planned and built, military leaders thought that a second Japanese attack, or even an invasion, could be imminent. Military targets, such as Wahiawa Radio Station would have been the prime targets for a second Japanese attack and could expect to suffer casualties. Casualty stations near the fighting front (or in this case near the attack targets) increased the survival chances of injured personnel by providing quick and versatile medical care. This is reflected in the original layout of Facility 22, with a fairly large ward area just off the ambulance entrance and an operating room that would have been used for those that required an urgent surgical procedure. Additional areas were provided for ancillary services, such as pharmacy, laboratory, diet kitchen, and nurse's station that casualties might need before being either discharged or transferred to a regular hospital.

The casualty station, as originally constructed, had a 16'-0" wide ambulance drive along its west end. The west side of the ambulance drive was a concrete hollow tile wall about 6'-10" high with openings between its top and the roof. By August 1945 an addition had been constructed to the west, along the length of this ambulance drive wall, apparently leaving the ambulance driveway open between the original building and the approximate 24' x 41'-9" addition. This addition is listed on a 1946 map of the area as Facility 22A, Dental Building. Also this year, Facility 22 is listed as a Dispensary. It is not known at what date the ambulance drive was enclosed.

The transition of Facility 22 from a casualty station to a dispensary represents its changing use from a triage and casualty stabilization area for wounded, to a medical clinic serving the radio station and supplying routine medical care for the personnel stationed there. The addition of the Dental Building, Facility 22A, is also reflective of the changing post-war situation at the Naval Radio Station to be able to provide routine dental services to station personnel.

By 1963 the entire building was referred to as Facility 22 and utilized solely as a dental clinic, references to the building as a (medical) dispensary were dropped. That year it was listed in the Navy Real Property Inventory as a Dental Clinic and a Dispensary Clinic, Dental.<sup>19</sup> Facility 22 retained this designation through at least 1974.

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<sup>18</sup> U.S. Navy Bureau of Yards and Docks, *Public Works of the Navy Data Book, Buildings, NAVDOCKS P-164, July 1945 Edition*, (Washington D.C.: Dept. of the Navy, 1945), 1091.

<sup>19</sup> U.S. Navy Bureau of Yards and Docks, *Detailed Inventory of Naval Shore Facilities, Real Property Data NAVDOCKS P-164, Vol. IV Districts 12 through 14*, (Washington D.C.: Dept. of the Navy, 1963), 3571.

U.S. NAVAL BASE, PEARL HARBOR, NAVAL RADIO STATION,  
TYPE "D" CASUALTY STATION  
(U.S. Naval Base, Pearl Harbor, Naval Radio Station, Dispensary, Building 22)  
(NCTAMS PAC, Medical Clinic, Facility 22)  
HABS No. HI-522-C (Page 10)

Splinterproof Casualty Stations at Pearl Harbor Naval Base During WW II

For detailed information on casualty stations built on the Pearl Harbor Naval Base and associated areas during WW II see HABS HI-390, U.S. Naval Base, Pearl Harbor, Splinterproof Air Raid Shelters; HABS HI-498, U.S. Naval Base, Pearl Harbor, Casualty Station Type A, Facility 213; HABS HI-423, U.S. Naval Base Pearl Harbor, Type A Casualty Station, Facility 216; and HABS HI-470, U.S. Naval Base Pearl Harbor, Type "B" Casualty Dressing and Decontamination Station, Facility 207.

During WW II there were three types of casualty stations built, Type A, Type B, and Type D. Types A & B differ from Type D (Facility 22) in several important areas. They were designed with airlock doors, were larger, and were splinterproofed by being constructed of cast concrete. Type A buildings were about 5000 square feet in area and Type B buildings about 8000 square feet, with a ward area that would accommodate about double the number of beds of a Type A station (65 versus 32 to 36). By contrast, Type D casualty stations were only about 2700 square feet in area, and were splinterproofed by filling their concrete hollow tile walls with sand and lying a concrete topping on the tongue and groove roof sheathing.

Although Facility 22 was designed without airlocks to protect the interior from a gas attack, it did have a building associated with it that served as a decontamination facility. Gas decontamination capabilities were usually incorporated into the design of the casualty station buildings through the use of airlocks and washing areas in the stations. Frequently, these functions were found in a separate building, such as at Facility 22 which had a Type F Gas-Proof Decontamination Building, Facility 23, constructed on its north side, adjacent to the splinterproof wall that protected the northwest end of Facility 22. Facility 23 was demolished sometime before 1951.

PART III. SOURCES OF INFORMATION

A. Architectural Drawings:

Historic drawings are available as electronic scans only at the NAVFAC Pacific Plan File data base at Building 258, Makalapa, Pearl Harbor. Scans can be viewed and printed on 11" x 17" paper only.

B. Early Views:

No early photo of Facility 22 was found during research for this report. A collection of photos ca. 1940-1943 showing construction of the Naval Radio Station at Wahiawa is available at the 14<sup>th</sup> Naval District Historic Photograph Collection, Pearl Harbor, Hawaii. Several of the photos in this collection show the site of Facility 22 before it was built. Aerial photos showing the station and Facility 22 from various altitudes are found at NAVFAC Archives, Port Hueneme, CA and at the Hawaii State Archives, Aerial Photo Collection. Bishop Museum, Honolulu, HI also has aerial photos of the area.

C. Bibliography:

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U.S. NAVAL BASE, PEARL HARBOR, NAVAL RADIO STATION,  
TYPE "D CASUALTY STATION  
(U.S. Naval Base, Pearl Harbor, Naval Radio Station, Dispensary, Building 22)  
(NCTAMS PAC, Medical Clinic, Facility 22)  
HABS No. HI-522-C (Page 11)

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"Haiku Antennae Stretch 1½ Miles." *Honolulu Star-Bulletin*. May 21, 1955.

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U.S. Navy, Bureau of Yards and Docks. *Public Works of the Navy Data Book, Buildings, Navdocks P-164*. Washington D.C.: Department of the Navy. July 1945 Edition.

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"Wahiawa Naval Radio Station Staffed by 500." *Honolulu Star-Bulletin*. May 21, 1955.

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TYPE "D" CASUALTY STATION  
(U.S. Naval Base, Pearl Harbor, Naval Radio Station, Dispensary, Building 22)  
(NCTAMS PAC, Medical Clinic, Facility 22)  
HABS No. HI-522-C (Page 12)

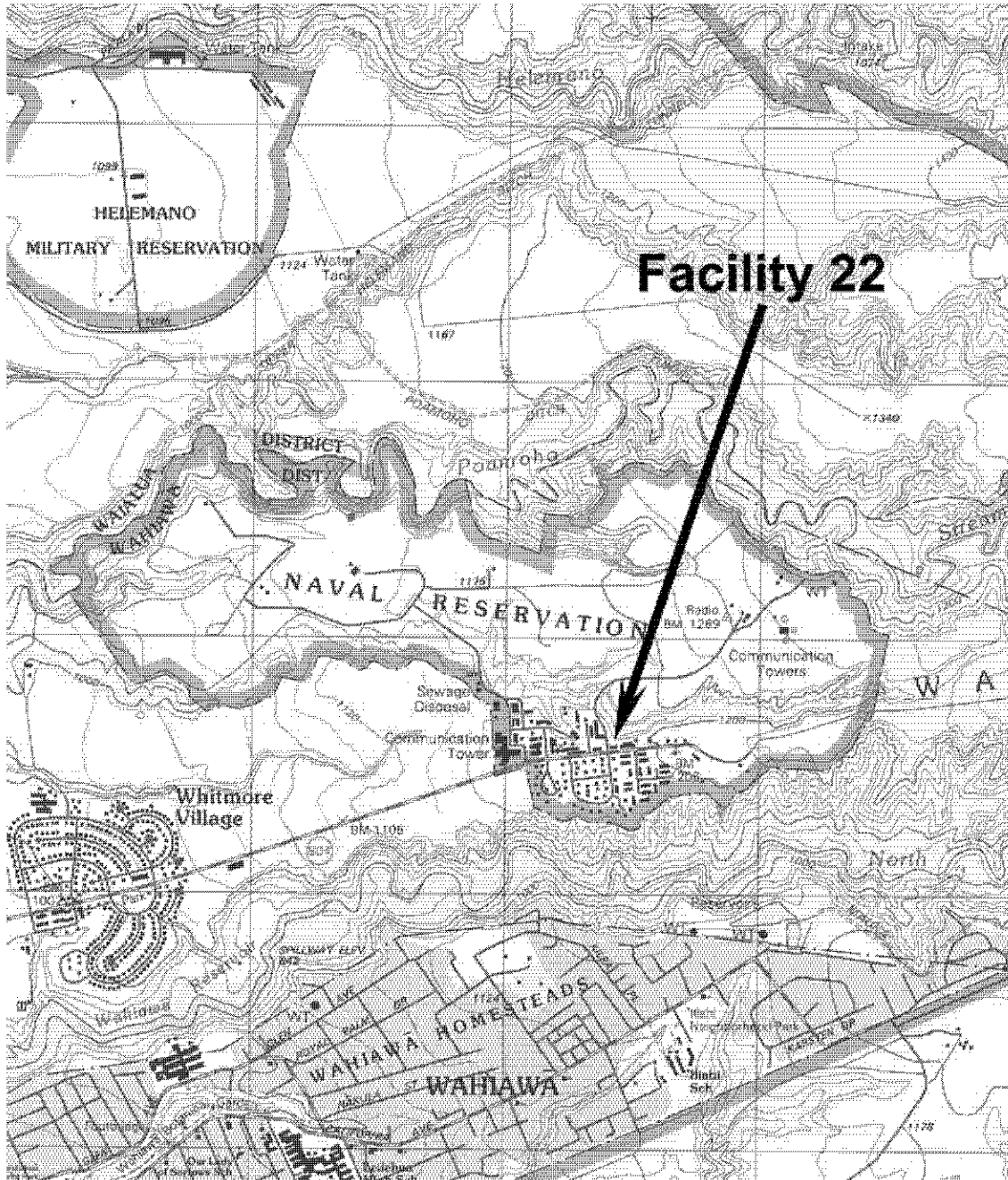
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#### PART IV. PROJECT INFORMATION

This report was produced by Commander, Navy Region Hawaii (CNRH) to satisfy requirements under Section 110 of the National Historic Preservation Act of 1966 (NHPA), as amended, to make appropriate records of historic properties that would be substantially altered or demolished as a result of Navy action. Mitigation for demolition or extensive alteration under Section 106 sometimes requires HABS reports according to National Park Service (NPS) guidance. Section 101(a) of the NHPA requires that these records be deposited in the Library of Congress for future use and reference. CNRH plans to demolish Facility 22 at NCTAMS , Wahiawa as part of the CNIC Demolition Footprint Reduction Program.

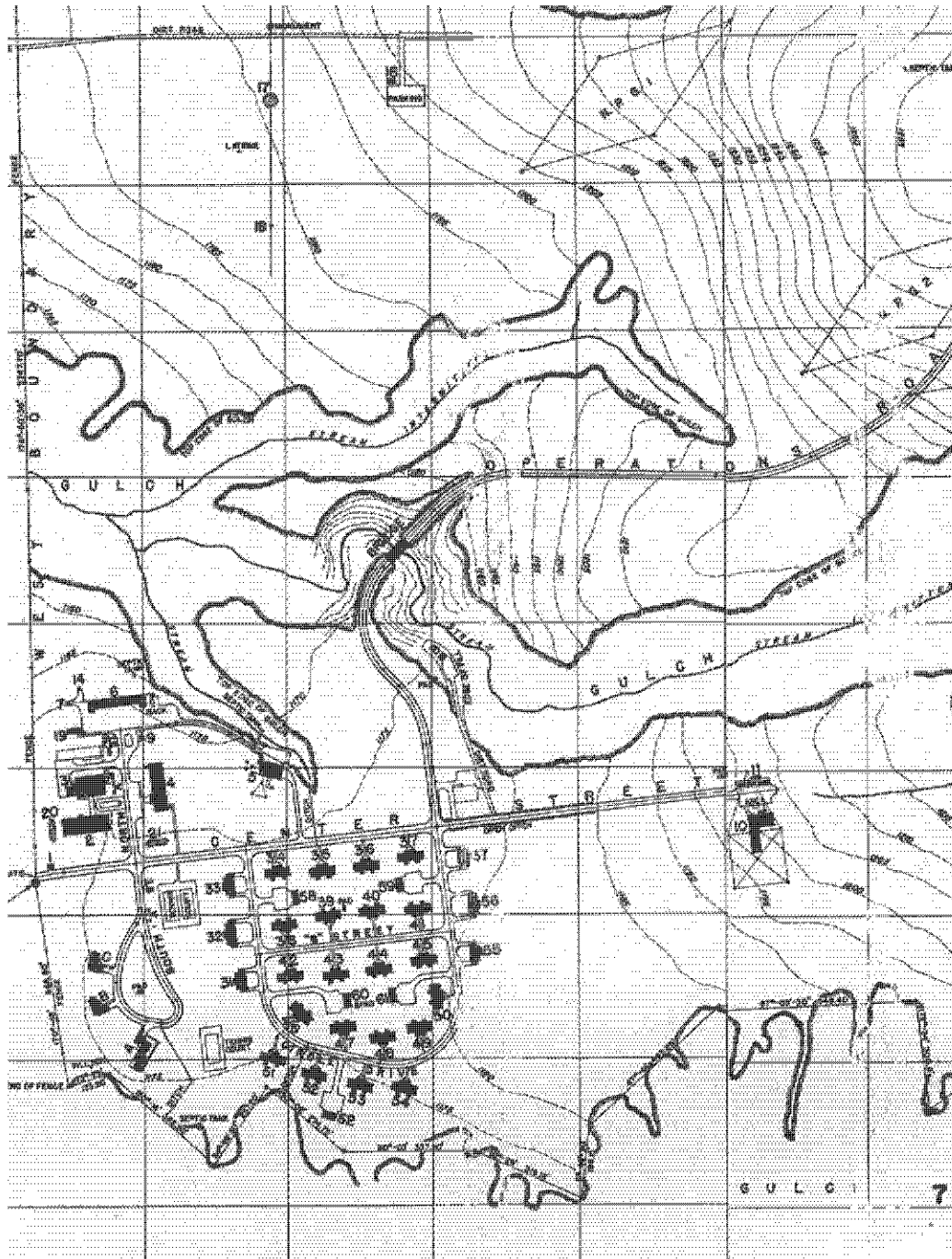
U.S. NAVAL BASE, PEARL HARBOR, NAVAL RADIO STATION,  
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(U.S. Naval Base, Pearl Harbor, Naval Radio Station, Dispensary, Building 22)  
(NCTAMS PAC, Medical Clinic, Facility 22)  
HABS No. HI-522-C (Page 13)

Location map. North at top.



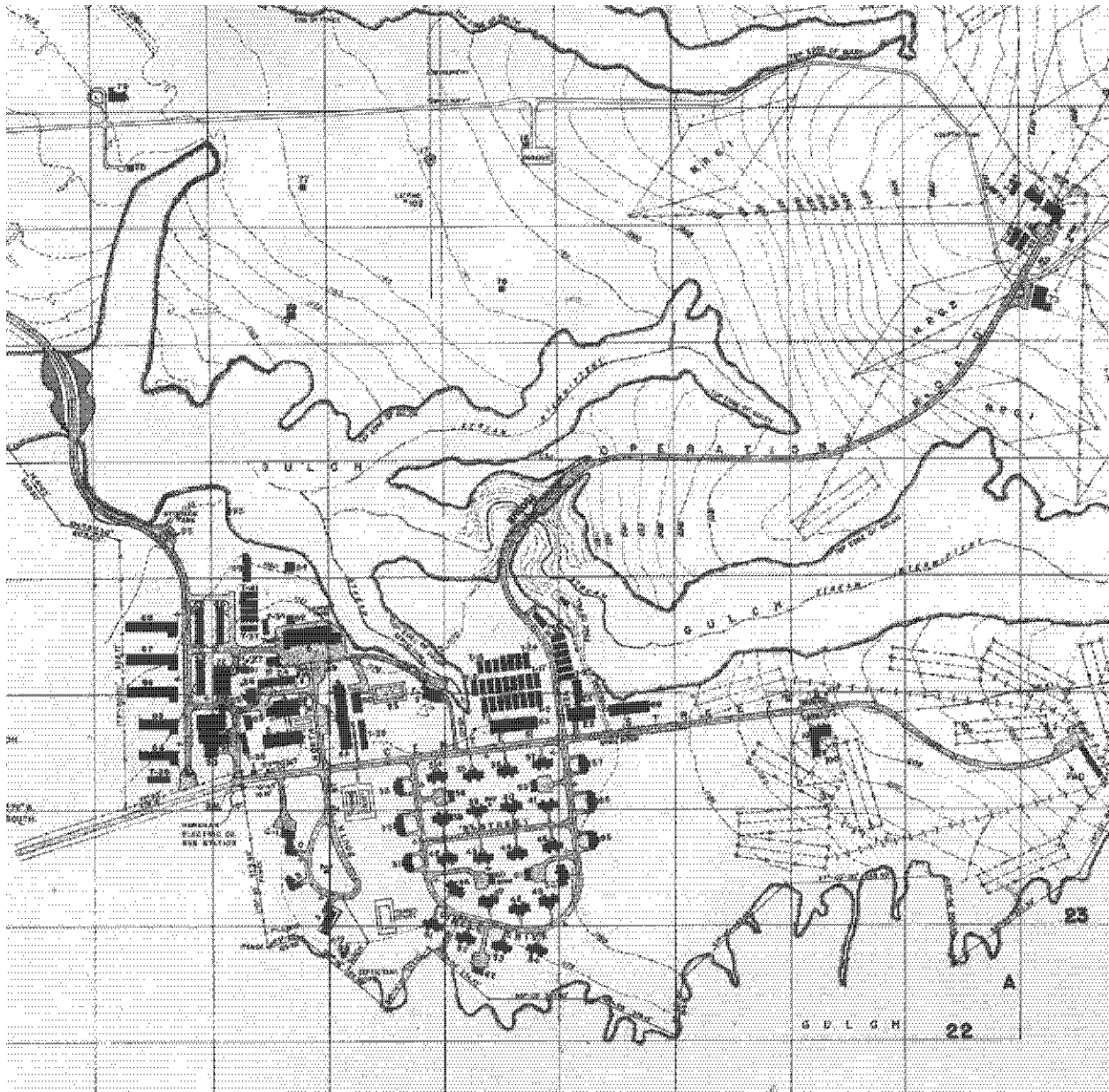
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(NCTAMS PAC, Medical Clinic, Facility 22)  
HABS No. HI-522-C (Page 14)

Portion of map dated June 1942 showing the Naval Radio Station at Wahiawa. Note the future site of Facility 22 at the northeast corner of Center Street and Circle Drive. North at top. NAVFACPAC drwg. OA-N1-528, June 30, 1942.



U.S. NAVAL BASE, PEARL HARBOR, NAVAL RADIO STATION,  
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(U.S. Naval Base, Pearl Harbor, Naval Radio Station, Dispensary, Building 22)  
(NCTAMS PAC, Medical Clinic, Facility 22)  
HABS No. HI-522-C (Page 15)

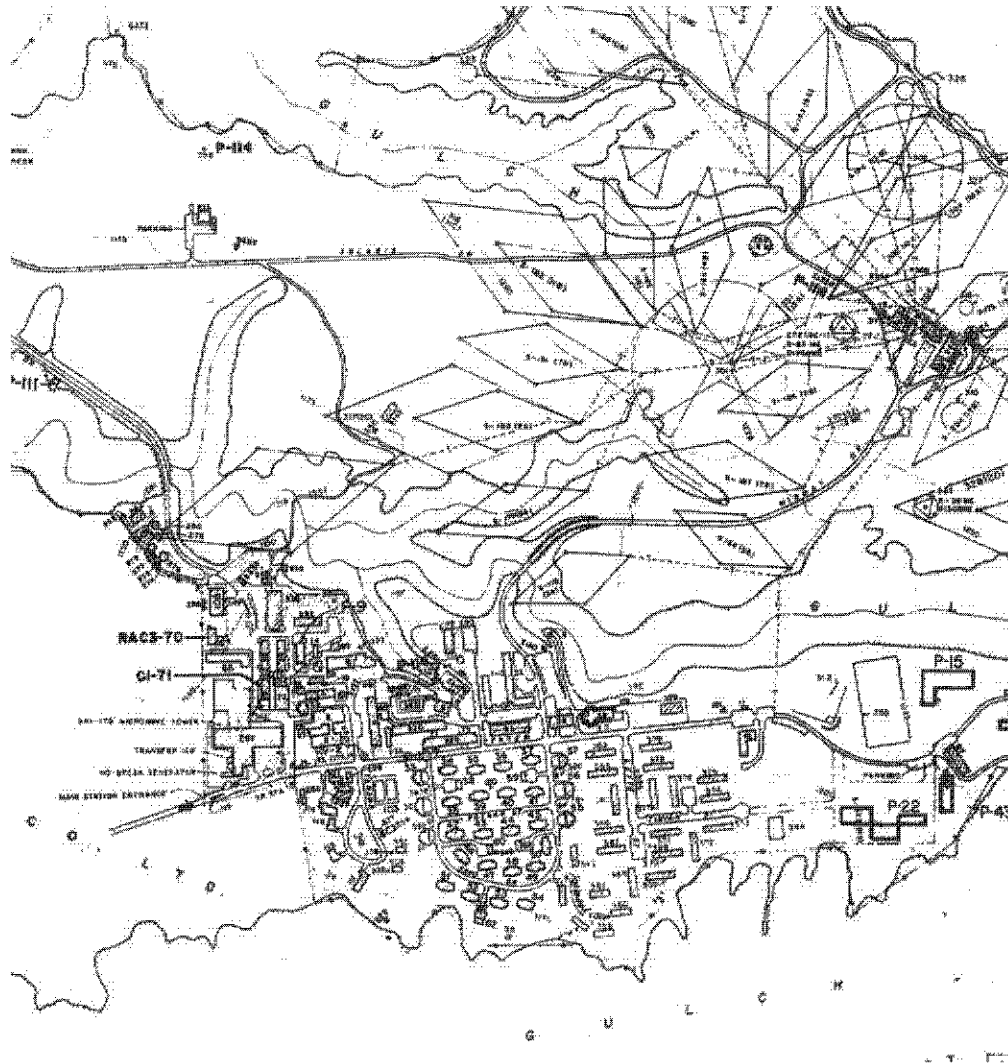
Portion of map dated June 1946 showing the World War II build out condition of the Naval Radio Station. Note Facility 22. North at top. NAVFACPAC drwg. OA-N1-1506, June 30, 1946.





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TYPE "D" CASUALTY STATION  
(U.S. Naval Base, Pearl Harbor, Naval Radio Station, Dispensary, Building 22)  
(NCTAMS PAC, Medical Clinic, Facility 22)  
HABS No. HI-522-C (Page 16)

Portion of map, corrected to 1971, showing the site condition of the Naval Communication Station at Wahiawa. North at top. NAVFAC drwg. 1038660, May 20, 1971.



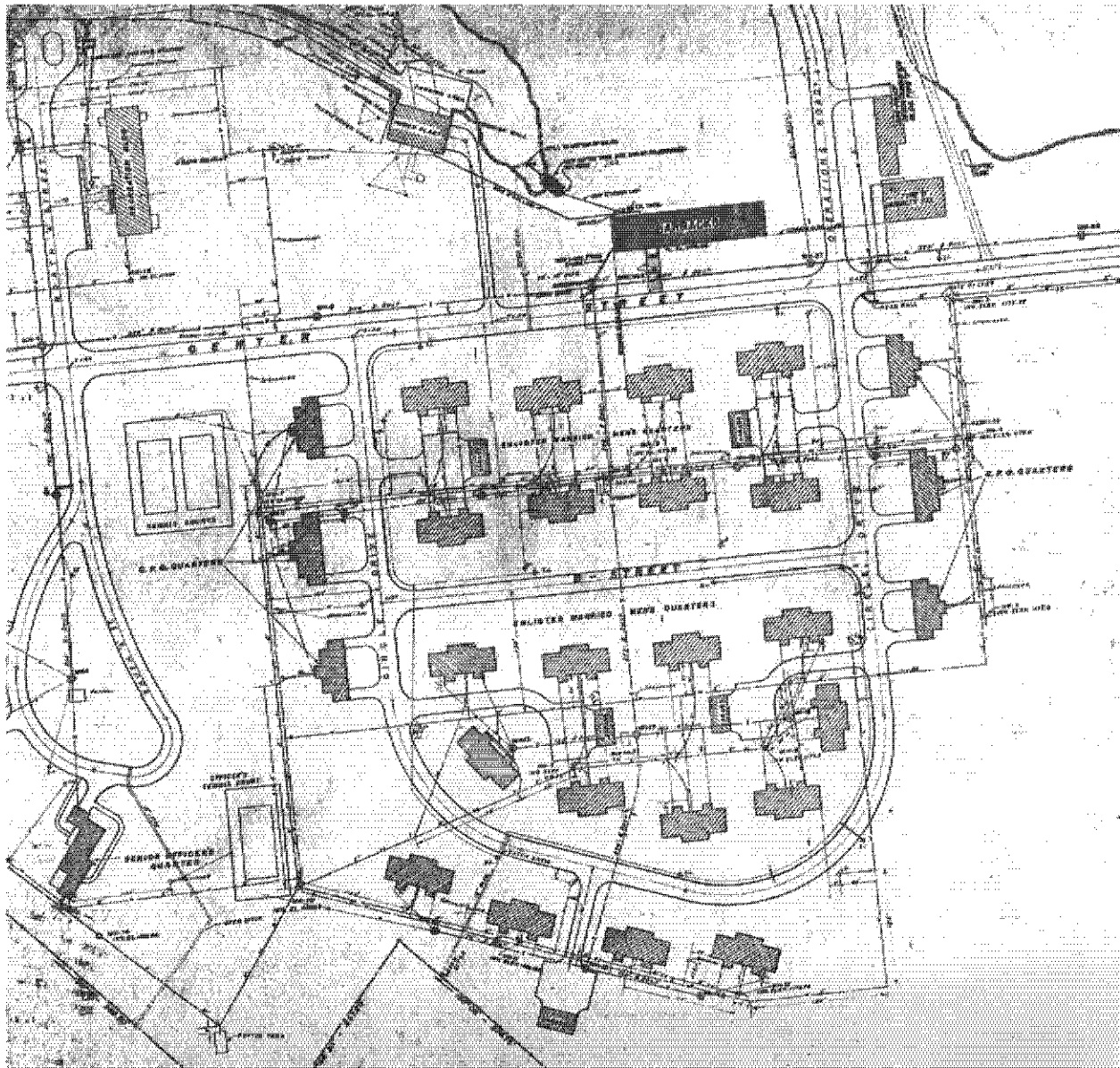
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(U.S. Naval Base, Pearl Harbor, Naval Radio Station, Dispensary, Building 22)  
(NCTAMS PAC, Medical Clinic, Facility 22)  
HABS No. HI-522-C (Page 17)

Map showing the existing conditions at NCTAMS .



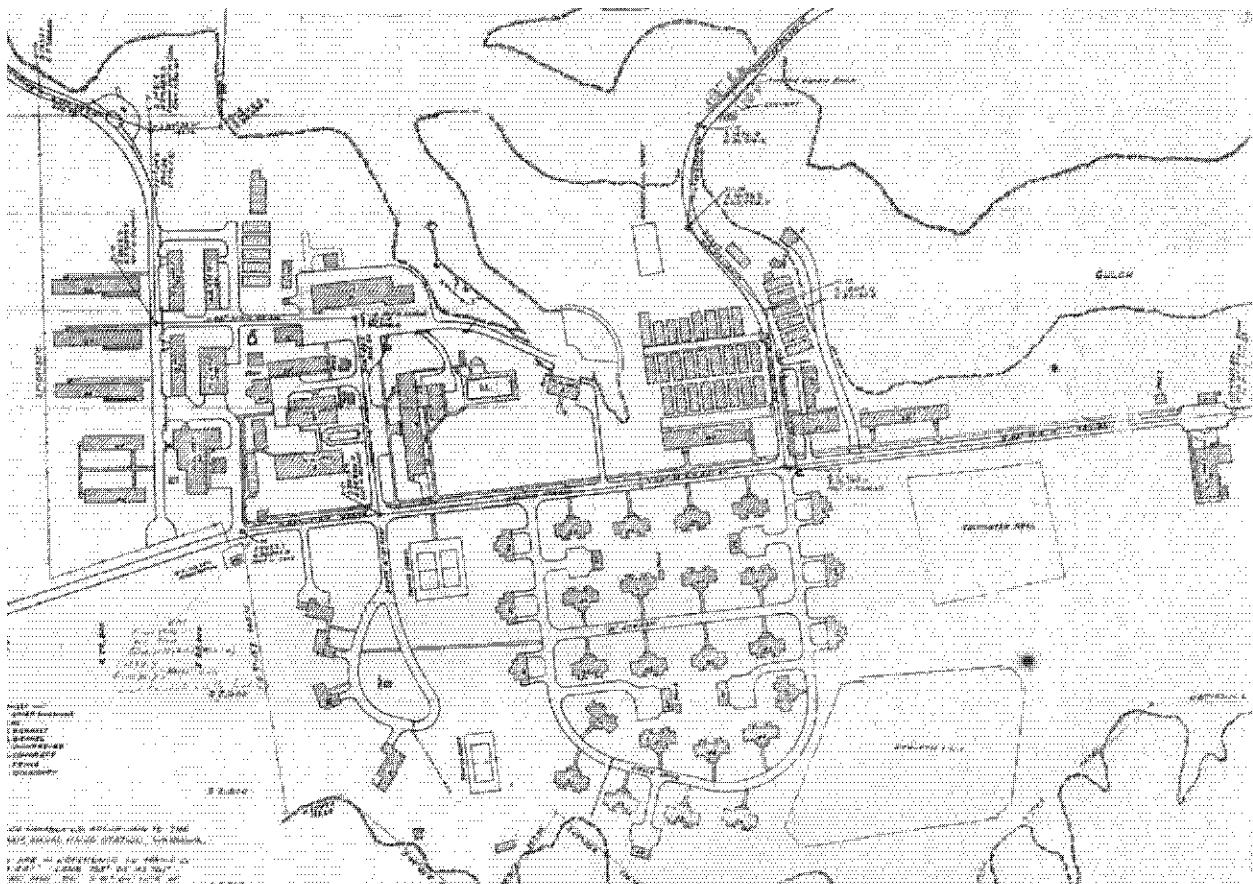
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(NCTAMS PAC, Medical Clinic, Facility 22)  
HABS No. HI-522-C (Page 18)

Portion of drawing dated March 1943 showing Facility 22 at the upper right (labeled on the drawing as "Type D Casualty Sta.") in its original configuration with an ambulance driveway at the west end. Just north of Facility 22 is its associated gas-proof decontamination building, Facility 23. North at top. NAVFAC drwg OA-N26-362, March 1943.



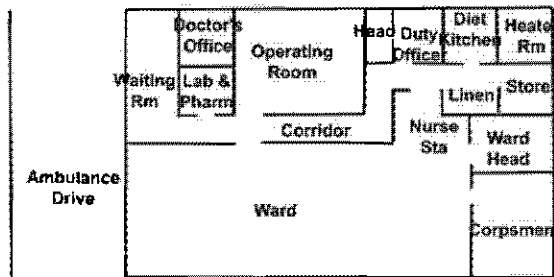
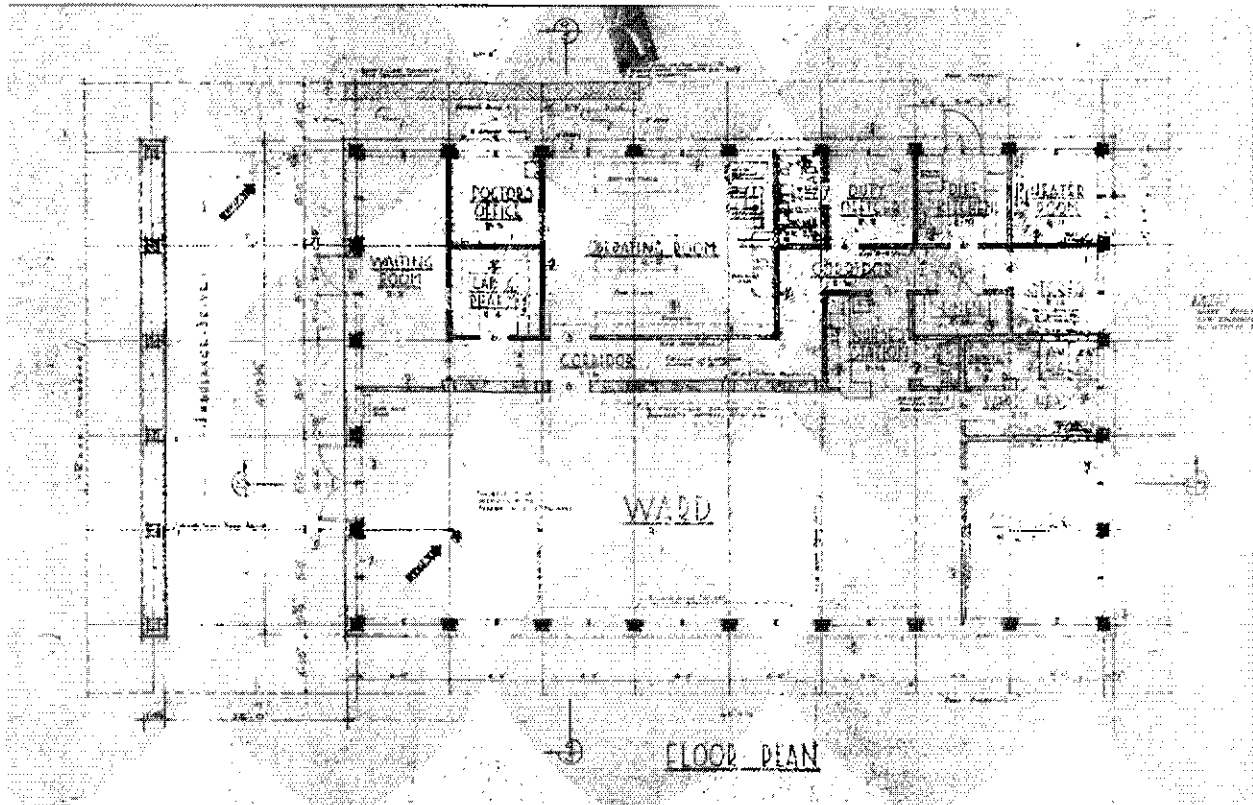
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(NCTAMS PAC, Medical Clinic, Facility 22)  
HABS No. HI-522-C (Page 19)

Portion of drawing dated August 1945 showing Facility 22 with an added addition off its west end. This drawing indicates that the ambulance drive extends through the building. Note Facility 23 immediately to the north of Facility 22. North at top. NAVFAC drwg OA-N1-1254, August 3, 1945.



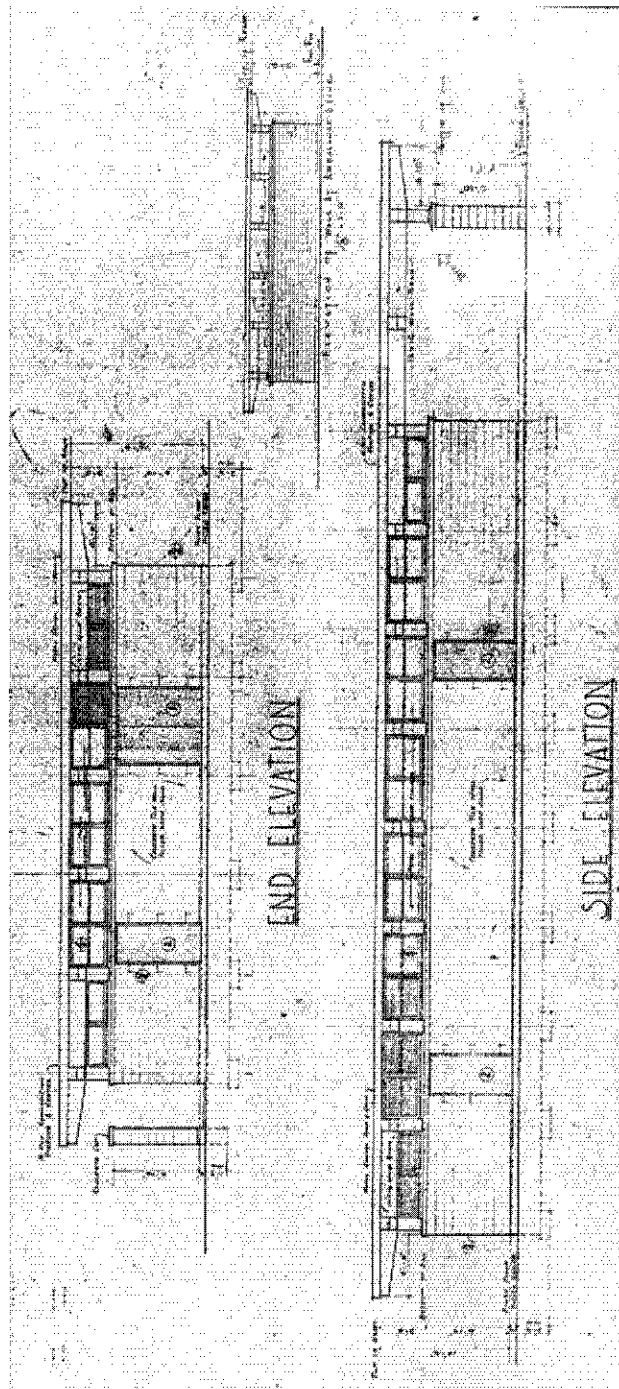
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 (NCTAMS PAC, Medical Clinic, Facility 22)  
 HABS No. HI-522-C (Page 20)

Portion of drawing dated May 14, 1942 showing the floor plan of Facility 22. Added key at the bottom shows the room labels of the historic drawing. NAVFAC drwg 199651, May 14, 1942.



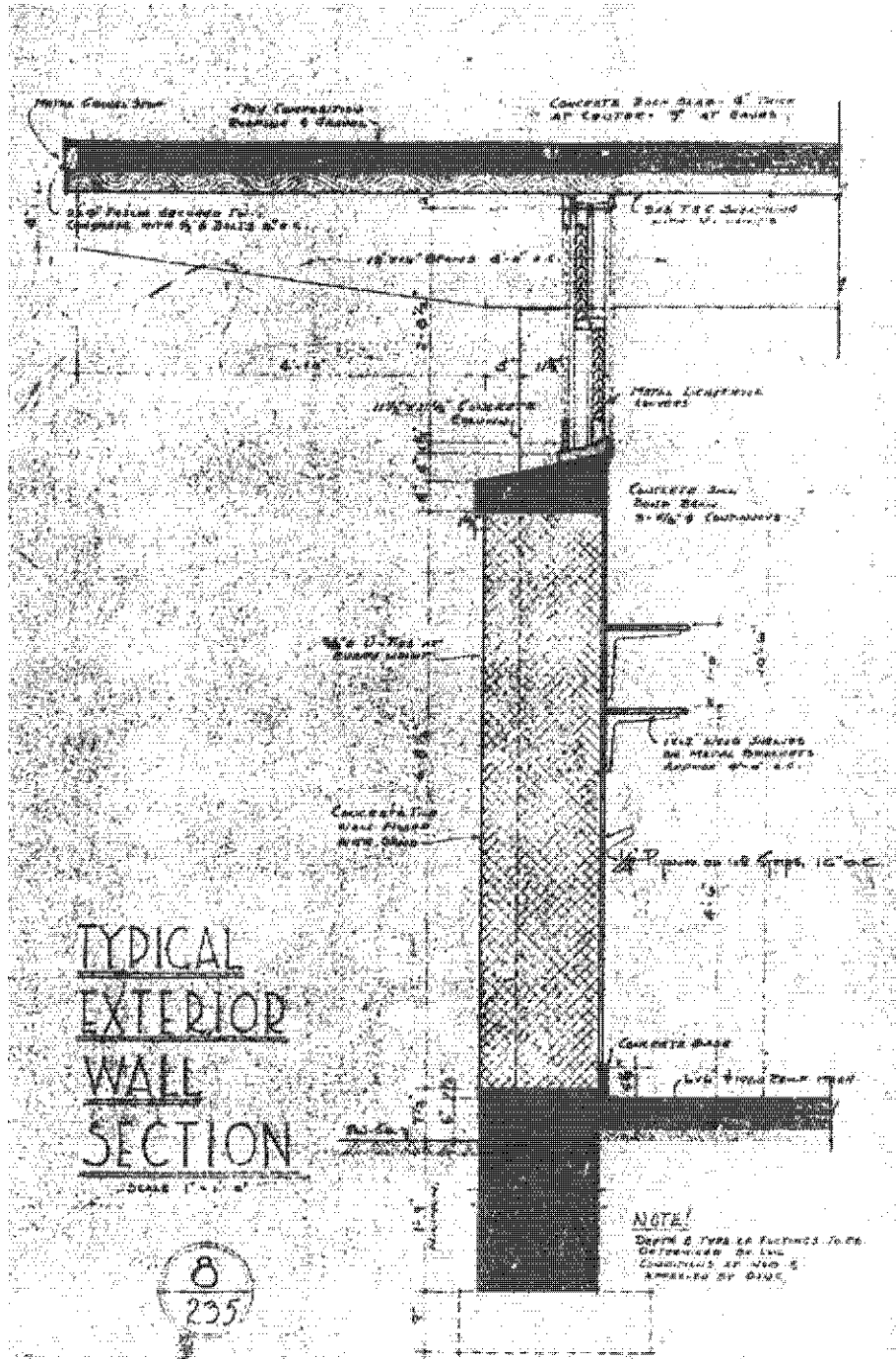
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(NCTAMS PAC, Medical Clinic, Facility 22)  
HABS No. HI-522-C (Page 21)

Portio of drawing dated May 14, 1942 showing side and end elevations of facility 22. NAVFAC  
drwg 199652, May 14, 1942.



(U.S. Naval Base, Pearl Harbor, Naval Radio Station, Dispensary, Building 22)  
(NCTAMS PAC, Medical Clinic, Facility 22)  
HABS No. HI-522-C (Page 22)

Portion of drawing dated May 14, 1942 showing a cross section of a typical exterior wall of Facility 22. Note the lightproof metal louvers at the top of the wall and roof of a concrete slab over tongue and groove roof sheathing. NAVFAC drwg 199653, May 14, 1942.



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(NCTAMS PAC, Medical Clinic, Facility 22)  
HABS No. HI-522-C (Page 23)

Portion of aerial photo dated April 29, 1948 showing the main built-up portion of the Naval Radio Station at Wahiawa, including Facility 22 (arrow and label added). North at top. NAVFAC Archives, Port Hueneme CA, Box TI1-4, Folder "Oahu Wahiawa Naval Radio Sta Aerial."

